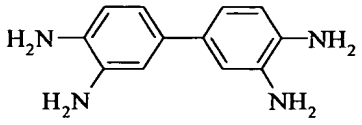
We claim:

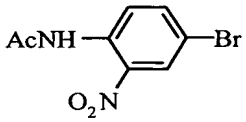
1. A novel process for producing 3,3',4-4'-tetraminobiphenyl (TAB) from 2-nitro-4-bromoacetamide (NBA) of formula 1, said process comprising



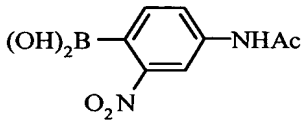
Formula-1

steps of

(a) reacting substrate of formula 2 with nitro acetamido phenyl boronic acid (NABP) of formula 3 in presence of a catalyst, a solvent and a base to obtain 3,3', dinitro- 4,4', diacetamidobiphenyl (DNDAcB) of formula 4,

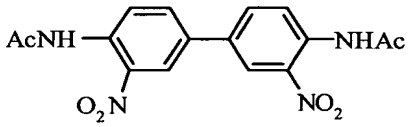


Formula 2

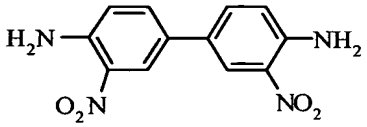


Formula 3

(b) hydrolysis of said 3,3', dinitro- 4,4', diacetamidobiphenyl (DNDAcB) of formula 4 to obtain 3,3', dinitro- 4,4', diaminobiphenyl (DNDAB) of formula 5, and



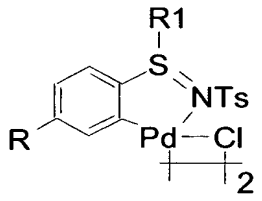
Formula 4



Formula 5

(c) reduction of said 3,3', dinitro- 4,4', diaminobiphenyl (DNDAB) of formula 5 to obtain 3,3',4-4'-tetraminobiphenyl (TAB) of formula 1.

2. The process as claimed in claim 1, wherein the reaction in step (a) is carried out under inert atmosphere ranging between 25^0C- 200^0C for a period in the range of 1 to 10 hrs.
3. The process as claimed in claim 1, wherein the solvent used is selected from the group consisting of toluene, dioxane, dimethylformamide, acetonitrile, acetone, water, methnol, acetic acid and chlorinated solvents.
4. The process as claimed in claim 1, wherein the solvent and the base used in step (a) is preferably toluene and potassium carbonate respectively.
5. The process as claimed in claim 1, wherein the catalyst used is Palladacycle of formula 7 with turnover number in the range of 6-10.



Formula-7

6. The process as claimed in claim 1, wherein the reduction is carried out using reducing agents selected from the group consisting of $SnCl_2$ with HCl and H_2/Pd catalyst.
7. The process as claimed in claim 1, wherein hydrolysis and reduction is carried out preferably using sodium hydroxide and $SnCl_2$ / concentrated HCl respectively.
8. The process as claimed in claim 1, wherein the substrates used for Suzuki type biaryl formation is selected from a group consisting of substituted aryl halides (X=Cl, Br, I) and a variety of substituted aryl boronic acids.
9. The process as claimed in claim 1, wherein the substrate used is preferably 2-nitro-4-bromoacetamide (NBA).
10. The process as claimed in claim 1, wherein the coupling agent is selected from the group consisting of 2 nitro-4-bromoacetanilide (NBA) and the boronic acids selected from the group consisting of 3-nitro-4-acetylaminophenyl boronicacid (NAPB).
11. The process as claimed in claim 1 , wherein the yield of 3,3', 4-4'-tetraminobiphenyl (TAB) is in the range of 60 to 84 %.